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| APPLICATION NO.                        | FILING DATE     | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|----------------------------------------|-----------------|----------------------|---------------------|------------------|
| 10/086,810                             | 03/04/2002      | Masanori Sekino      | 112120              | 1587             |
| 25944 7                                | 7590 12/29/2004 |                      | EXAMINER            |                  |
| OLIFF & BERRIDGE, PLC                  |                 |                      | DO, ANH HONG        |                  |
| P.O. BOX 19928<br>ALEXANDRIA, VA 22320 |                 |                      | ART UNIT            | PAPER NUMBER     |
|                                        | ,               |                      | 2624                |                  |

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Application No.                                                                                                 | Applicant(s)                |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------|--|--|--|
| Office Action Commence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 10/086,810                                                                                                      | SEKINO, MASANORI            |  |  |  |
| Office Action Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Examiner                                                                                                        | Art Unit                    |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ANH H DO                                                                                                        | 2624                        |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address<br>Period for Reply                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                 |                             |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |                                                                                                                 |                             |  |  |  |
| Status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                 |                             |  |  |  |
| 1) Responsive to communication(s) filed on                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                 |                             |  |  |  |
| 2a) This action is <b>FINAL</b> . 2b) ⊠ This                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | action is non-final.                                                                                            |                             |  |  |  |
| 3) Since this application is in condition for allowar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is |                             |  |  |  |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                 |                             |  |  |  |
| Disposition of Claims                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                 |                             |  |  |  |
| 4) Claim(s) <u>1-10</u> is/are pending in the application.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                 |                             |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                 |                             |  |  |  |
| 5) Claim(s) is/are allowed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                 |                             |  |  |  |
| 6)⊠ Claim(s) <u>1-7,9 and 10</u> is/are rejected.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                 |                             |  |  |  |
| 7)⊠ Claim(s) <u>8</u> is/are objected to.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                 |                             |  |  |  |
| 8) Claim(s) are subject to restriction and/or                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | r election requirement.                                                                                         |                             |  |  |  |
| Application Papers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                 |                             |  |  |  |
| 9)☐ The specification is objected to by the Examiner.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                 |                             |  |  |  |
| 10) $\boxtimes$ The drawing(s) filed on <u>01 April 2002</u> is/are: a) $\boxtimes$ accepted or b) $\square$ objected to by the Examiner.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                 |                             |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                 |                             |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                 |                             |  |  |  |
| 11)☐ The oath or declaration is objected to by the Ex                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | aminer. Note the attached Offi                                                                                  | ice Action or form PTO-152. |  |  |  |
| Priority under 35 U.S.C. § 119                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                 |                             |  |  |  |
| <ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                 |                             |  |  |  |
| application from the International Bureau (PCT Rule 17.2(a)).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                 |                             |  |  |  |
| * See the attached detailed Office action for a list of the certified copies not received.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                 |                             |  |  |  |
| A44                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                 |                             |  |  |  |
| Attachment(s)  1) Notice of References Cited (PTO-892)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 4) Interview Summa                                                                                              | ary (PTO-413)               |  |  |  |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 3/4/2002.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Paper No(s)/Mail                                                                                                |                             |  |  |  |

Art Unit: 2624

#### **DETAILED ACTION**

### **Priority**

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

## Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-7, 9, and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Kadono (U.S. Patent No. 6,445,826).

Regarding claim 1, Kadono discloses an image coding apparatus comprising:

- a pixel value changing section 206 for changing a pixel value of a current pixel

Art Unit: 2624

205 in an image data 201 (Fig. 3);

- an error distributing section 208 for distributing an error value 209 produced in the pixel value changing section 206 to neighbor pixels (Fig. 3 and col. 66, lines 4-5, teaching distributing the prediction error in the neighborhood of 0 inherently including neighbor pixels);

- an image coding section 210 for coding the pixel value which is changed by the pixel value changing section 206 (Fig. 3);
- wherein the pixel value changing section changes the pixel value so as to reduce a code quantity in the image coding section 210 (Fig. 3 and col. 66, lines 5-7, teaching the efficient encoding with the small of bit number is possible).

Regarding claim 2, Kadono teaches lossless coding (col. 41, lines 54-58, teaching the image encoding apparatus performs loss-less encoding).

Regarding claim 3, Kadono teaches predictive coding (Fig. 30 shows encoding section 210 performs predictive encoding on the prediction error 209).

Regarding claim 4, Kadono teaches an error diffusion method (col. 66, lines 4-5, teaching distributing the prediction error in the neighborhood of 0).

Regarding claim 5, Kadono teaches a minimum average error method (col. 72, lines 40-45, teaching the prediction error is small to be encoded).

Regarding claim 6, Kadono teaches when change is not performed the error is not within the range (i.e., a predetermined value) (col. 73, line 67 – col. 74, line 7).

Regarding claim 7, Kadono teaches the coding by encoding section 210 is performed after the pixel value change is performed in section 207 (Fig. 30).

Art Unit: 2624

Regarding claim 9, Kadono discloses an image coding and decoding apparatus comprising:

- a pixel value changing section 206 for changing a pixel value of a current pixel 205 in an image data 201 (Fig. 3);
- an error distributing section 208 for distributing an error value 209 produced in the pixel value changing section 206 to neighbor pixels (Fig. 3 and col. 66, lines 4-5, teaching distributing the prediction error in the neighborhood of 0 inherently including neighbor pixels);
- an image coding section 210 for coding the pixel value which is changed by the pixel value changing section 206 (Fig. 3);
- an image decoding section 230 in Fig. 37 for decoding the code of the image coding section 210 in Fig. 30;
- wherein the pixel value changing section changes the pixel value so as to reduce a code quantity in the image coding section 210 (Fig. 3 and col. 66, lines 5-7, teaching the efficient encoding with the small of bit number is possible).

Regarding claim 10, since this is a method claim corresponding to the apparatus claim 1, the discussion of claim 1 is applied hereto.

### Allowable Subject Matter

4. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2624

5. The following is a statement of reasons for the indication of allowable subject matter:

The prior art, either taken singly or in combination, does not teach:

- selecting means for, on the basis of a judgment output of the coincidence judging means, outputting one of identification information for identifying pixel value predicting means of which the predicted pixel value is judged by the coincidence judging means to attain coincidence and the error, which is calculated by the prediction error calculating means.

#### **Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANH H DO whose telephone number is 703-308-6720. The examiner can normally be reached on 5/4-9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DAVID K MOORE can be reached on 703-308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

Art Unit: 2624

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

December 23, 2004.

ANH HONG DO PRIMARY EXAMINER